Hydrol. Earth Syst. Sci. Discuss., https://doi.org/10.5194/hess-2020-420-RC2, 2020 © Author(s) 2020. This work is distributed under the Creative Commons Attribution 4.0 License.



## Interactive comment on "Mobile open dynamic chamber measurement of methane macroseeps in lakes" by Frederic Thalasso et al.

## **Anonymous Referee #2**

Received and published: 19 October 2020

Comments to hess 2020-420

The manuscript introduces a mobile open dynamic chamber to determine the methane flux from lakes, ebullitive or diffusive. The Ms is well written and is clear and concise. However, there are some aspect which I found difficult to follow:

The design of the MOD is a bit difficult to grasp. More photos could be helpful here. Figure 1 should be improved, why is the top of the chamber open? What sort of purge ventil is used?

I found the indices for the different parameters a bit confusing. D- for detector and C-for chamber, ok, but I and O ??

I was wondering, when the detector is sucking gas from the chamber and there is no

C.

ebullition, the purge ventil would let air into the chamber. I do not understand how you correct for this dilution and how you realize when there is more ebullition or more dilution? Ok, I read now the details on the purge ventil. But still, did you correct your measured data for a possible dilution?

Why did you divide your measurements into segments? The nice thing about your MOD is that you have continuous measurements on the whole lake....

Some more examples for the measured data and calculated fluxes would be appreciated.

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., https://doi.org/10.5194/hess-2020-420, 2020.